

Department of Energy

§ 835.205

and tissue weighting factor values provided in § 835.2.

[72 FR 31926, June 8, 2007]

§ 835.204 Planned special exposures.

(a) A planned special exposure may be authorized for a radiological worker to receive doses in addition to and accounted for separately from the doses received under the limits specified in § 835.202(a), provided that each of the following conditions is satisfied:

(1) The planned special exposure is considered only in an exceptional situation when alternatives that might prevent a radiological worker from exceeding the limits in § 835.202(a) are unavailable or impractical;

(2) The contractor management (and employer, if the employer is not the contractor) specifically requests the planned special exposure, in writing; and

(3) Joint written approval is received from the appropriate DOE Headquarters program office and the Secretarial Officer responsible for environment, safety and health matters.

(b) Prior to requesting an individual to participate in an authorized planned special exposure, the individual's dose from all previous planned special exposures and all doses in excess of the occupational dose limits shall be determined.

(c) An individual shall not receive a planned special exposure that, in addition to the doses determined in § 835.204(b), would result in a dose exceeding the following:

(1) In a year, the numerical values of the dose limits established at § 835.202(a); and

(2) Over the individual's lifetime, five times the numerical values of the dose limits established at § 835.202(a).

(d) Prior to a planned special exposure, written consent shall be obtained from each individual involved. Each such written consent shall include:

(1) The purpose of the planned operations and procedures to be used;

(2) The estimated doses and associated potential risks and specific radiological conditions and other hazards which might be involved in performing the task; and

(3) Instructions on the measures to be taken to keep the dose ALARA con-

sidering other risks that may be present.

(e) Records of the conduct of a planned special exposure shall be maintained and a written report submitted within 30 days after the planned special exposure to the approving organizations identified in § 835.204(a)(3).

(f) The dose from planned special exposures is not to be considered in controlling future occupational dose of the individual under § 835.202(a), but is to be included in records and reports required under this part.

[58 FR 65485, Dec. 14, 1993, as amended at 63 FR 59682, Nov. 4, 1998]

§ 835.205 Determination of compliance for non-uniform exposure of the skin.

(a) Non-uniform exposures of the skin from X-rays, beta radiation, and/or radioactive material on the skin are to be assessed as specified in this section.

(b) For purposes of demonstrating compliance with § 835.202(a)(4), assessments shall be conducted as follows:

(1) *Area of skin irradiated is 100 cm² or more.* The non-uniform equivalent dose received during the year shall be averaged over the 100 cm² of the skin receiving the maximum dose, added to any uniform equivalent dose also received by the skin, and recorded as the equivalent dose to any extremity or skin for the year.

(2) *Area of skin irradiated is 10 cm² or more, but is less than 100 cm².* The non-uniform equivalent dose (H) to the irradiated area received during the year shall be added to any uniform equivalent dose also received by the skin and recorded as the equivalent dose to any extremity or skin for the year. H is the equivalent dose averaged over the 1 cm² of skin receiving the maximum absorbed dose, D, reduced by the fraction f, which is the irradiated area in cm² divided by 100 cm² (i.e., $H = fD$). In no case shall a value of f less than 0.1 be used.

(3) *Area of skin irradiated is less than 10 cm².* The non-uniform equivalent dose shall be averaged over the 1 cm² of skin receiving the maximum dose. This equivalent dose shall:

(i) Be recorded in the individual's occupational exposure history as a special entry; and